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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,752	02/21/2002	Mario Vismara	163-381	9402

7590 05/10/2004  
James V. Costigan, Esq.  
HEDMAN & COSTIGAN, P.C.  
Suite 2003  
1185 Avenue of the Americas  
New York, NY 10036-2646

EXAMINER

COLETTA, LORI L

ART UNIT PAPER NUMBER

3612

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/081,752

Applicant(s)

VISMARA ET AL.

Examiner

Lori L. Coletta

Art Unit

3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2002 and 18 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **shaped front cross member (17A)** (claim 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glance 6,435,579 in view of Carpenter et al. 5,139,297.

Regarding claim 1, Glance '579 discloses a protective structure for vehicles, comprising a substantially linear front cross member (10) having two lateral ends comprising a unitary fillable internal chamber, wherein said front cross member is connected to lateral side members, and having at least one underlying laterally-placed first absorber element (13) positioned near each lateral end of said front cross member, said laterally-placed first absorber element being connected externally after the cross member on the bumper side of the vehicle, and having an

Art Unit: 3612

additionally absorber system (13) interposed between said laterally-placed first absorber element (13) in Figures 1 and 2.

However, Glance '579 does not show wherein inside said cross member, at least one second absorber is present, which increases the force which will cause the collapse of the cross member and the energy absorbed by said cross member and, simultaneously, limits the overall dimensions of the entire structure, wherein said underlying laterally-placed first absorber element and said second absorber element are made of materials which deform under pressure of about  $5\text{-}30\text{ N/mm}^2$  which corresponds to a crushing of 50%.

Carpenter et al. '297 teaches an absorber element (10) inside the cross member (16) and the absorber element made of materials which deform under pressure of about  $5\text{-}30\text{ N/mm}^2$  which corresponds to a crushing of 50% (column 3, lines 56-58).

Regarding claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cross member of the protective structure of Glance '579 with an absorber element inside, as taught by Carpenter et al. '297, in order to absorb a significant amount of energy at low speed impact and returning to its original non-impacted condition.

Regarding claim 3, Glance '579, as modified, discloses the protective structure for vehicles, wherein said cross member has a substantially straight geometrical structure which is fitted with curved bumper conforming in shape to said underlying laterally-placed first absorber element and said additional absorber system wherein said absorber elements and said additional absorber system are interposed between said bumper and said cross member.

Regarding claim 5, Glance '579, as modified, discloses the protective structure for vehicles, wherein said first absorber element and said second absorber element comprise absorbing materials selected from the group consisting of extruded thermoplastic honeycomb, honeycomb made of aluminum, polyurethane foam, foamed polypropylene, rigid polyurethane, semi-rigid polyurethane and extruded polyurethane.

Regarding claim 6, Glance '579, as modified, discloses the protective structure for vehicles, wherein said cross member is made of metal or a plastic flat. The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. (MPEP section 2113).

Regarding claim 7, Glance '579, as modified, discloses the protective structure for vehicles, wherein said cross member is flat and is made of a metal or a plastic flat. The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. (MPEP section 2113).

4. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans 2002/0149214 in view of Norlin 3,997,207.

Regarding claim 8, Evans discloses a protective structure for vehicles, comprising a shaped front cross member (21) made of metal or plastic having two lateral ends comprising a unitary fillable internal chamber, wherein said front cross member is connected to lateral side-members (20a), and having at least one underlying laterally placed first absorber element (22) positioned near the laterally end of said front cross member, said laterally placed first absorber connected externally after the cross member on the bumper side of the vehicle, and an additional absorber system interposed between said laterally-placed absorber elements, said laterally-placed

Art Unit: 3612

first absorber element is made of materials which deforms under pressures of about  $5\text{-}30\text{ N/mm}^2$  which corresponds to about crushing of 50% in Figure 1.

However, Evans '214 does not show wherein inside said cross member, at least one second absorber element is present, which increases the force which will cause the collapse of the cross member and the energy absorber by said cross member, and simultaneously, limits the overall dimensions of the entire structure, wherein said second absorber element is made of materials which deforms under pressures of about  $5\text{-}30\text{ N/mm}^2$  which corresponds to about crushing of 50%.

Norlin '207 teaches a number of cellular sections (12) inside a longitudinal beam (13) in Figure 3.

Regarding claim 8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cross member of the protective system of Evans '214 with a absorber element inside, as taught by Norlin '207, in order to provide shock absorption.

Regarding claims 9 and 10, Evans '214, as modified, discloses the protective structure for vehicles. The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. (MPEP section 2113).

#### *Response to Arguments*

5. Applicant's arguments with respect to claims 1, 3 and 5-10 have been considered but are moot in view of the new ground(s) of rejection.

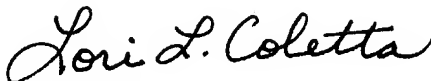
Art Unit: 3612

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lori L. Coletta whose telephone number is (703) 306-4614.

The examiner can normally be reached on Monday-Friday 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on (703) 308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lori L. Coletta  
May 3, 2004

Lori L. Coletta  
Examiner  
Art Unit 3612